

Sound View Dunes Park Stewardship Management Plan

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I. Introduction

The Plan herein attempts to balance public access with protecting the ecological integrity of Sound View Dunes Park. Overall management issues, including allowed uses, the types of infrastructure required for the site, and maintenance costs, are addressed in the main body of this plan. The details and estimated costs for constructing the public access amenities, removing obsolete manmade structures, and implementing ecological restoration projects are addressed in the Implementation Plan (Appendix H). The Implementation Plan will be updated by the Land Preservation Department without further action of the Town Board if there is no significant change to cost or intent. To fully implement the Sound View Dunes Park Stewardship Management Plan is estimated to cost \$920 annually and \$121,583 in additional one-time costs (note: some costs are still to be determined). All of the outlined expenses are eligible for reimbursement through an existing grant and all expenses are eligible for reimbursement through the Community Preservation Fund, if budgeted.

II. Description of park

Sound View Dunes Park is named in honor of the park's stunning views of Long Island Sound, its unique ecological character, and its location along Sound View Avenue. The park spans over 57 acres and is located within the Hamlet of Peconic in the Town of Southold (SCTM# 1000-058-01-1.1; Appendices A and B). Sound View Dunes Park includes hardwood forest, freshwater wetlands, primary and back dunes, and 1,400 feet of Long Island Sound beachfront. (Appendix C). The property is refuge to a double dune system and a maritime freshwater interdunal swale, a rare ecological occurrence in New York State and uncommon globally. See Appendix D for information on the details of the acquisition, historic use of the property, and other protected property in the area.

Sound View Dunes Park was purchased for open space passive recreational purposes and is not considered to be an active park^{1,2}. Two hiking trails, a beach trail and forest trail, provide public access for passive recreational activities including but not limited to hiking, bird watching, and beach access.

The main entrance is marked by a large sign at the original driveway on Sound View Avenue. The car and bicycle parking areas are located within the main entrance near the main gate and informational kiosk.

III. Public access, staffing, and security

This park is open to the public year-round from dawn to dusk for passive recreational uses. For organized events, a Suffolk County Parks Special Use Permit and a Southold Town special permit may be required. This Park is not staffed. Security is under the jurisdiction of both Southold Town Police and Suffolk County Parks Police.

¹ In Suffolk County Resolution No. 1125-2007, Authorizing acquisition of land under the Suffolk County Environmental Legacy Fund for open space preservation for the Moeller & TMJ Realty, Inc. Property, the following operative clause is included, "6th Resolved, that the subject parcel(s) shall be transferred to the Department of Parks, Recreation and Conservation for passive recreational use;"

² In Southold Town Resolution 2007-773, the fee title acquisition of the properties owned by Jacqueline Moeller and TMJ Realty Inc. a/k/a Bittner Properties shall have the use, "limited to those consistent with passive recreational uses and shall be designed in accordance with the environmentally significant nature of the property."

Passive recreation includes, but is not limited to, the following activities:

- traditional low-intensity uses of preserved natural features and resources, such as hiking, bird watching, cross country skiing, beach access, fishing and similar activities which are directly related to the natural qualities of the preserved open space (see Appendix E for Trail Etiquette and Safety).
- environmental research and education uses, such as citizen science surveys so long as these do not involve substantial alteration or improvement of the open space (note: a Suffolk County Permit is required).
- astronomical observation in the evenings with prior approval of the Southold Town Board and the Suffolk County Parks Department (note: a Suffolk County Permit is required).
- deer management as part of the County/Town hunting programs (note: permit required, open to all Suffolk County residents).

IV. Prohibited activities

The following list outlines uses prohibited on Town-owned open space lands covered by this management plan:

- (1) All activities not related to the purposes of the property acquisitions are prohibited.
- (2) Throwing, breaking, casting, laying or depositing any garbage, refuse, glass or any injurious substance of any kind or nature.
- (3) Use of gas-powered engines (vehicles and equipment) with the exceptions of vehicles and equipment necessary for approved stewardship work and emergency/public safety vehicles.
- (4) Willfully destroying, injuring, defacing, damaging, removing or displacing any town-owned property, including the trails.
- (5) Events including, but not limited to, weddings, parties, reunions, flea markets, swap meets, antique shows, and car shows.
- (6) Maintaining a camp, trailer or other structure.
- (7) Conducting any business, solicitation or advertising.
- (8) Campfires or bonfires.
- (9) Possessing or discharging any fireworks.
- (10) The building, placing, or moving of any structures including, but not limited to windmills and cell towers not otherwise approved in this management plan.
- (11) The creation of any athletic fields including, but not limited to, basketball courts, volleyball courts, soccer fields, football fields and baseball fields.
- (12) Irrigation systems.
- (13) Sports activities, including league games.
- (14) Digging and artifact recovery.
- (15) Woodcutting.
- (16) Removal of vegetation.
- (17) Hunting, except deer archery (note: permit required, open to all Suffolk County residents).
- (18) Trapping of wildlife with the exception of Town-approved trapping of diseased wildlife and feral cats.
- (19) Abandonment of pets or other domesticated animals.
- (20) Feeding wildlife, including geese.
- (21) Use of gas-powered Other Power Driven Mobility Devices (OPMDs) – see Appendix G.

In addition, this property is subject to Suffolk County Parks Rules and Regulations Chapter 378 of the Suffolk County Code which prohibits certain activities.

V. Public access amenities

This section includes a description of the infrastructure required for the park. Appendix F shows the approximate location of the structural amenities. The details of the public access amenities including design, wording, materials, costs, implementation timeline, and responsible entities are addressed in the implementation plan (Appendix H).

A. Main entrance and signs

The main entrance is at the original driveway on Sound View Avenue and is marked by a large sign displaying the park name. Boundary signs mark the perimeter of the park.

B. Parking area

The parking area accommodates four vehicles (anticipated for normal demand) and is located on the west side of the existing driveway into the park, approximately 87 feet into the park. Should Southold Town or the Suffolk County Parks Department determine parking to be inadequate, then additional parking spaces will be created directly opposite the existing parking area (see Appendix F).

C. Trailhead kiosk

It is common practice that parks have the parking area, trailhead, kiosk in close proximity to one another. The trailhead kiosk is located on the east side of the driveway and next to the bicycle rack. The visitor information signage posted in the kiosk includes a map, an acknowledgement to the National Oceanic and Atmospheric Administration Coastal and Estuarine Land Conservation Program for funding a portion of the acquisition, and other pertinent park information.

D. Bicycle rack

For visitors arriving by bicycle, a bicycle rack is available near the kiosk. In general, biking is not permitted on the property.

E. Gate

To help ensure that the outdoor experience for visitors starts as close to the entrance of the park as possible, a new swinging gate is featured closer to the parking area.

F. Trails

Two trails will be maintained at the Sound View Dunes Park (see also Appendix H).

i. Beach trail

The beach trail provides access to the beach and is a leisurely walk of a third of a mile (1,670 ft) across the back dune and primary dune to the beach. Given an average hiker walks one mile in about 20 minutes at a brisk pace, the beach trail should take less than 10 minutes one way for an average hiker. To accommodate mobility-disabled visitors, in-line and tandem OPDMDs not to exceed 36" inch maximum width are allowed (only on this trail, OPDMDs are prohibited on the Forest Trail; see Appendix G).

The beach trail is considered a multiuse service trail (*i.e.*, unimproved roads, typically greater than 8 feet in width; see Appendix G). It shall be maintained at a tread width of 15ft, a clearing width of

15ft and a clearing height of 15ft. The base of the trail will remain the original ground (*i.e.*, no wood chips or other substrates to be added without the explicit approval of the Southold Town Land Preservation Committee and the Suffolk County Department of Parks).

The beach trail also provides beach access for the dredging equipment (*i.e.*, excavator, off-road trucks, and bulldozer) used to dredge Goldsmith Inlet. To maintain access, trimming of vegetation will be permitted to allow for the 15ft clearance needed. No grading or fortifying or clearing of snow on the beach trail (or the driveway north of the gate) is permitted and won't be needed as the dredging equipment is designed to handle difficult driving conditions. Each year, the mound of sand at the terminus of the beach trail before getting to the beach will be removed by the dredging equipment for access to the beach and then restored when the dredging is completed. The mound of sand will have no more than a 20% grade to allow hiker access to the beach.

ii. Forest trail

The forest trail provides a meandering loop of approximately 1 mile (4,920 ft) through back dune, freshwater wetland and forest habitats. The trail also contains two spurs; one provides an alternate path to the beach and the other leads to Sound View Avenue, a place where hikers have historically parked their cars to access the property. Given the terrain, the forest trail likely requires a moderate level of physical fitness and will likely take a hiker 20-40 minutes to complete. In-line and tandem OPDMDs are not permitted on this trail.

The forest trail is considered a pedestrian single track trail (*i.e.*, an unpaved, narrow gauge trail, suitable for hiking only; no OPDMD devices are permitted; see Appendix G). The trail shall be maintained at a tread width of 3ft, a clearing width of 5ft (one foot on each side of the tread), and a clearing height of 8ft (New York State Office of Parks, Recreation and Historic Preservation, 2008). The base of the trail will remain the original ground (*i.e.*, no wood chips or other substrates to be added without the explicit approval of the Southold Town Land Preservation Committee and the Suffolk County Department of Parks).

VI. Park and trail maintenance

This park is designed to require a low amount of maintenance (see Table 1 for costs). Signage throughout the Park will be periodically assessed and maintained. The parking area and driveway to the parking area will be plowed of snow for winter visitors. Litter on the trails and common areas will be removed periodically.

Trail corridors will be maintained seasonally by clearing brush to the aforementioned trail specifications and treads periodically assessed for possible additional management. In particular, the forest trail segment overlooking Long Island Sound at the top of the coastal sand dune will be monitored for management. The tread up and down the sand dune as well as a portion of the northern face of the sand dune is bare sand. The rest of the sand dune is stabilized by roots and forest litter. Management of this segment of the trail system will focus on maintaining the natural processes of the natural dune system by implementing "soft" techniques (*i.e.*, replenishing sand on the trail, and if needed, planting vegetation and installing fence in adjacent areas). While an elevated dune walkway is also known as a soft technique, it is prohibitively expensive to build and maintain, and would significantly change the hiker's wilderness experience. Terracing of the sandy areas (considered a "hard" technique) should also not be employed, as it would only provide temporary protection and would likely produce "end effects" that would cause erosion problems

adjacent to the trail itself. Mowing is not envisioned to be needed as the tread surface of the trails varies from mineral soil to sand.

Table 1. Sound View Dunes Park Stewardship Management Plan -- Budget and Timeline															
Notes: All expenses in this budget are eligible for CPF reimbursement.															
Number	Action	Lead Entities	Costs			Timeline									
			Yearly			Fall 2011	Winter 2012	Spring 2012	Summer 2012	Fall 2012	Winter 2013	Spring 2013	Summer 2013	Fall 2013	Winter 2014
			Supplies	Personnel	Subcontract										
1	Maintain trails, signs, kiosk and parking area	Southold Dept of Public Works	\$200	\$720											
Totals			\$200	\$720											
Notes: All expenses in this budget are eligible for CPF reimbursement.															

VII. Obsolete manmade structures

Structures associated with the park's past use as a single family residence serve as an attractive nuisance, may compromise the park visitor's experience, and may compromise the ecological integrity of the site. To undevelop the entire property, all structures should be removed and natural conditions restored. Specific details including costs, implementation timeline, and responsible entities are addressed in the implementation plan (Appendix H)

VIII. Ecology

This section includes a description of the natural resources unique to the park and threats to the park's ecological integrity. The details of implementing prescribed ecological restoration projects in order to abate the threats including costs and timeline are addressed in the Implementation Plan (Appendix H).

A. Unique natural resources

i. Maritime freshwater interdunal swale

Maritime freshwater interdunal swales are low, shallow freshwater wetlands that occur between dunes along the Atlantic Coast. Water levels fluctuate seasonally or annually, reflecting changes in groundwater levels. Soils generally have a thin, about 1 cm, organic layer over coarse sand. The dominant species are typically sedges and herbs, including upright sedge (*Carex stricta*) and umbrella flatsedge (*Cyperus diandrus*). Low shrubs are usually present, but they are never dominant, including large cranberry (*Vaccinium macrocarpon*), bayberry (*Myrica pensylvanica*) and highbush blueberry (*Vaccinium corymbosum*). Other examples of maritime freshwater interdunal swales are Napeague Dunes (Suffolk County); Atlantic Double Dunes (Suffolk County), and Walking Dunes (Suffolk County) (New York Natural Heritage Program, 2001).

The park's maritime freshwater interdunal swale is approximately 4-acres in size. Included in this freshwater wetlands chain is a .38-acre open pond, commonly called the "Fire Pond". It seems that this waterbody was once a shallow wetland and was dredged.

The maritime freshwater interdunal swale ecosystem present at the park is an uncommon ecological occurrence globally, and rare within New York State. With a New York Natural Heritage Program rank of G3G4 S2, this community type is "very vulnerable to extirpation from New York State"

(New York Natural Heritage Program, 2001). Within New York, maritime freshwater interdunal swales are only found in the coastal lowlands of Suffolk County.

ii. Threatened and endangered species

Animal species listed as threatened or endangered may be present on the park. Monitoring for these species should be conducted and appropriate site specific plans implemented, if necessary. The New York Natural Heritage Program has confirmed the occurrence of the endangered piping plover (*Charadrius melodus*) at, or in the vicinity of, the park.

B. Threats

i. Conversion of freshwater interdunal swale to common reed marsh

Since the parcel is already in public ownership, the most immediate threat to the decline in health and eventual extinction of this maritime freshwater interdunal swale is community conversion to common reed marsh. Other threats to maritime freshwater interdunal swales include encroachment from additional invasive species, groundwater contamination, off-road vehicle use, and management practices that alter hydrologic processes (New York Natural Heritage Program, 2001).

As of 2011, there was common reed (*Phragmites australis*) growing at low-density throughout about 63% of the almost 4-acre wetland swale (a total of about 2.5 acres; see Appendix H, Attachment C). There are a few patches where the *Phragmites* plants are forming monocultures, including around the area known as the Fire Pond. Steps to eradicate the common reed are outlined in the implementation plan (Appendix H).

ii. Deer

While a deer population count has not been undertaken within the boundaries of Sound View Dunes Park, as of 2011, the entire Town of Southold is clearly above the ~20 deer per square mile number that is commonly recognized as needed in a given area for a healthy ecosystem to flourish. Some of the levels cited include 26-44 deer mi⁻² (10-17 km⁻²) (Healy, 1997), 18 deer mi⁻² (7 km⁻²) (Tilghman, 1989), and 5-16 deer mi⁻² (2-6 km⁻²) (Rooney, 1995). It has been shown that when deer densities are reduced to approximately 20 per square mile, the restoration of forest vegetation will begin and plant/tree species diversity will increase, although it may take years to reverse the damage caused by high deer densities (*i.e.*, Horsley *et al.*, 2003 showed that the diversity of forest vegetation began to return 10 years after deer densities were reduced). Steps to manage the deer population are outlined in the implementation plan (Appendix H).

iii. Biodiversity loss at the genetic level

To the maximum extent practicable, plants and seeds used in restoration will be from local genotypes. In the fields of restoration ecology and conservation biology, conserving biodiversity has long been focused at the habitat, population, and species levels. Recently, the importance of protecting biodiversity at a *genetic* level has gained recognition and momentum as the implications of the loss of biodiversity within native plant populations and communities have become apparent. Safeguarding the genetic integrity of the nation's open spaces has largely gone unrecognized, unprotected, and undermanaged.

IX. Special issues

Equipment access for dredging Goldsmith Inlet

Goldsmith Inlet is dredged using an excavator, off-road trucks, and a bulldozer each year. Sound View Dunes Park is used as the equipment access point to the beach by way of the beach trail. The dredging equipment is designed to handle difficult driving conditions and requires about a 15ft wide clearance. To maintain access, trimming of vegetation will be permitted to allow for the 15ft clearance but no grading or fortifying or clearing of snow will be permitted on the beach trail (or the driveway north of the gate). Each year in January, the mound of sand at the terminus of the trail before getting to the beach will be removed by the dredging equipment for access to the beach and then restored when the dredging is completed. Heavy equipment access on the Sound View Dunes Park is limited to the Town or County dredging equipment and is only allowed on the beach trail.

Prior to 2006, a sand bridge was constructed across Goldsmith Inlet for the dredge equipment to access the inlet and the beach east of the inlet. Making a bridge across the inlet adds 2-3 days more to the dredging effort and about 50% more to the cost.

X. References

- Healy, W. M. 1997. Influence of deer on the structure and composition of oak forests in central Massachusetts. Pages 249-266 *in* W. J. McShea, H. B. Underwood, and J. H. Rappole, eds. The science of overabundance: deer ecology and population management. Smithsonian Institution Press.
- Horsley, S. B., S. L. Stout and D. S. deCastela. 2003. White-tailed deer impact on the vegetation dynamics of a northern hardwood forest. *Ecological Applications* 13:98-118.
- New York Natural Heritage Program. 2001. *Ecological Communities of New York State*. 134pp
- New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources. April 2010. Checklist of Amphibians, Reptiles, Birds and Mammals of New York State Including Their Legal Status. 26 pp.
- New York State Office of Parks, Recreation and Historic Preservation. 2008. The New York State Statewide Comprehensive Outdoor Recreation Plan and Generic Environmental Impact Statement 2009-2013, Chapter 5 – Creating Connections Beyond Parks and Open Spaces.
- Rooney, T. P. 1995. Restoring landscape diversity and old growth to Pennsylvania's northern hardwood forests. *Natural Areas Journal* 15:274-278.
- Tilghman, N. G. 1989. Impacts of white-tailed deer on forest regeneration in northwestern Pennsylvania. *Journal of Wildlife Management* 53 (3):524-532.

Appendix B. Aerial Photograph (year: 2004)



Appendix C. Habitat Classification Map and Table (Cornell Cooperative Extension, 2009)

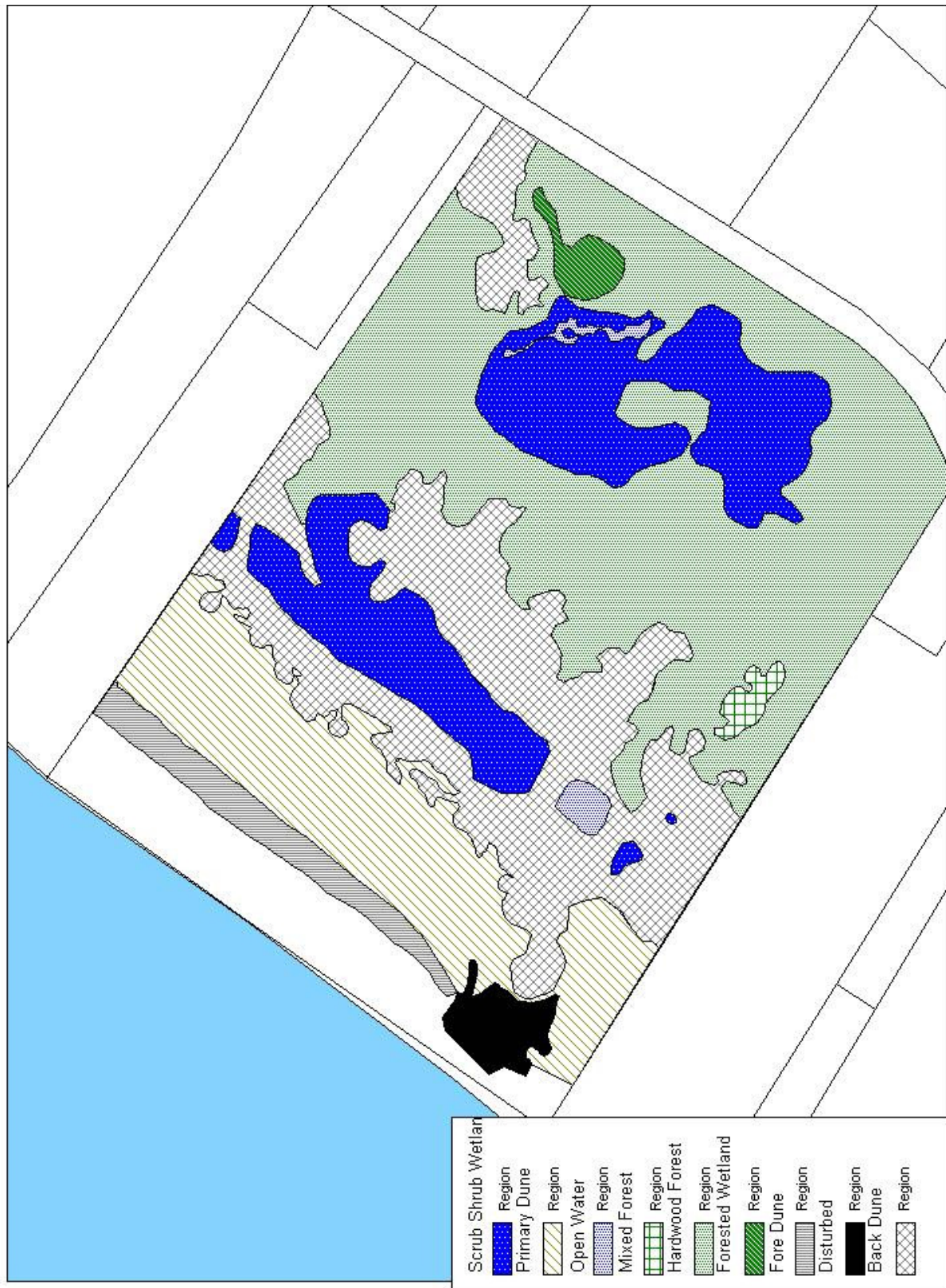


Table: Approximate acreages of habitat classifications

Habitat Classification	Acreage
Beach	5.27 +/-
Fore Dune/Beachgrass	1.57 +/-
Primary Dune	8.42 +/-
Back Dune	12.27 +/-
Scrub Shrub Wetland	8.66 +/-
Forested Wetland	.49 +/-
Open Water	.38 +/-
Mixed Forest	.31 +/-
Mixed Hardwood Forest	19.69 +/-

Appendix D. Acquisition information, historic use of the property, and other protected property in area

I. Background of acquisition

Acquired in April 2008 from the Bittner Family, the \$13,294,000 acquisition was a 50%/50% tenants-in-common partnership between the Town of Southold (\$6,561,555) and the County of Suffolk (\$6,561,555; County of Suffolk Environmental Legacy Fund). Southold Town's portion of the purchase price was funded through the Community Preservation Fund (\$5,096,820) and a federal grant award from the US National Oceanic and Atmospheric Administration, Coastal Estuarine Land Conservation Program (NOAA/CELCP; \$1,464,735). The Nature Conservancy and the Peconic Land Trust helped facilitate the transaction.

II. Historic use of the property

No significant historical resources have been identified at the site. In the recent past, the property served as a single family residence and boarding for a few horses. The existing trails on the property were used predominantly by equestrians in conjunction with the trails on the south side of Soundview Avenue on parcels owned by the Bittner family. The house, outbuildings, bulkhead, driveway and associated accessory structures covered approximately .5 acres and were concentrated primarily in the northwest portion of the property.

III. Protected property in area

The Sound View Dunes Park contributes significantly to a long stretch of protected Long Island Sound shoreline habitat, including the 37.3 acre waterfront Peconic Dunes County Park to the east and the 32.6 acre waterfront Goldsmith Inlet County Park to the west. The Sound View Dunes Park is separated from the Peconic Dunes County Park by 460 feet of shoreline.

Appendix E. Trail Etiquette and Safety

The following rules have been established so that all users may safely enjoy the trails:

Trail Hours: Follow park hours; dawn – dusk

Trail Maps & Information: Consult trailhead kiosks for park maps, directions and important trail condition/wildlife warnings

Yield Right-Of-Way: When meeting other users on the trails, other power driven mobility devices yield to all other trail users.

Obey All Posted Signs: Note any safety condition warnings and restrictions on use (*e.g.*, type of OPDMDs allowed, trails limited to walkers/hikers only, etc.).

Pets Allowed: Dogs must be on a leash and under owner's control; pet clean-up is required.

Stay on Marked Trails: These are the safest and best routes through the park. You may damage sensitive wildlife habitats or natural resources by straying off the marked trails.

Pack it in --- Pack it out: Carry out garbage and leave the area clean for the next visitor to enjoy.

Be Weather Wary–Note Trail Conditions: You use the trails at your own risk, so please pay special attention to freezing temperatures and rain, snow, mud or ice. These can create slippery conditions on bridges and walkways, and on both paved and natural surface trails.

Prepare Before You Visit: Learn about the trails before venturing out for the first time. Plan your route, and bring a map.

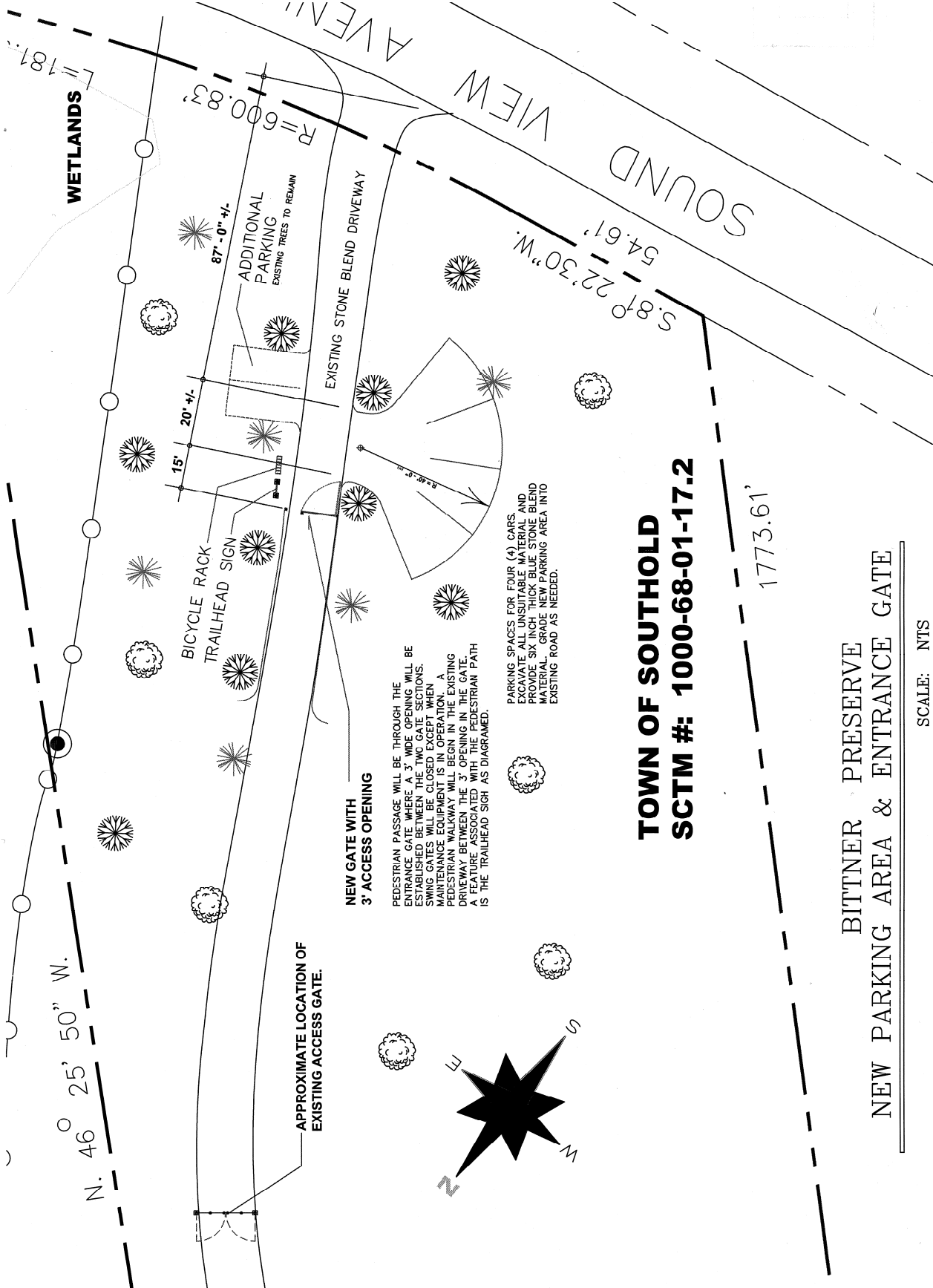
Wear a Helmet: Inline OPDMD users are required by NY State law to wear a helmet (appropriate safety gear is recommended for everyone).

Know your limits: It takes about 20 minutes to walk 1 mile (1.6km) at a brisk pace. A one mile walk can take much longer at a slower pace. All OPDMDs must obey a speed limit of 5 mph when other users are present; 10 mph when other users are not present.

Protect yourself from ticks: Stay away from tall grass and shrubby areas; wear tick repellant; tuck long pants into socks; and check yourself for ticks during and after each visit to the parks.

Avoid Poison Ivy: Stay on the trails—it's your best defense. Remember: "leaves of three, let it be"

Appendix F. Schematic of parking area and public access structures



Appendix G. Americans with Disabilities Act Title II Rules – Accessible Trails

I. Background

The Department of Justice has issued revised Americans with Disabilities Act (ADA) Title II rules applying to state and local government programs. The new rules, which took effect March 15, 2011, provide a definition of a wheelchair and other power driven mobility devices (OPDMDs) and add additional provisions identifying where they can be used (28CFR §§ 35.104, 35.137). An OPDMD is any mobility device powered by batteries, fuel, or other engines that is used by individuals with mobility disabilities for the purpose of locomotion, whether or not it was designed primarily for use by individuals with mobility disabilities. OPDMDs may include vehicles, ATVs, golf cars, Segway® personal transporters, or any mobility device that is not a wheelchair, which is designed to operate in areas without defined pedestrian routes (28CFR § 35.104). These rules allow a mobility device to be permitted in any areas open to pedestrian use.

Under the new rules, municipalities must make reasonable modifications to public access policies and establish procedures to allow the use of OPDMD devices by individuals with mobility disabilities unless the municipality can demonstrate that the class of OPDMDs cannot be operated in accordance with legitimate safety requirements (28CFR § 35.137(b)(1)). The ruling is not about trail construction.

II. Definitions

Other power-driven mobility device – As per 28CFR §35.104, any mobility device powered by batteries, fuel, or other engines—whether or not designed primarily for use by individuals with mobility disabilities—that is used by individuals with mobility disabilities for the purpose of locomotion, including golf cars, electronic personal assistance mobility devices (EPAMDs), such as the Segway® PT, or any mobility device designed to operate in areas without defined pedestrian routes, but that is not a wheelchair within the meaning of this section.

Wheelchair - As per 28CFR §35.104, a manually-operated or power-driven device designed primarily for use by an individual with a mobility disability for the main purpose of indoor, or of both indoor and outdoor locomotion.

Electric-powered mobility devices - any mobility device powered by batteries, including multiple passenger carts (three or four wheels), electronic personal assistance mobility devices (such as the Segway PT), battery-powered bikes (two or three wheels) and single passenger scooters (three or four wheels).

Gas-powered mobility devices - any mobility device powered by a gas-fueled engine using natural gas, gasoline, diesel, synthetic or bio fuel or combination thereof, including all-terrain vehicles, carts (three or four wheels), off-road bikes (two or three wheels), motor scooters (two or three wheels), motor cycles (two wheels), tractors and vehicles (four wheels).

Tandem wheel device - A two, three or four-wheeled mobility device where the wheel alignment is parallel along one or more axles.

Inline wheel device - A two-wheeled mobility device where the wheel direction of travel are aligned in the same plane.

III. Assessment

An assessment of the trails has been completed and a determination made regarding which OPDMD devices are authorized for use on specific trails. As per 28CFR §35.130, a public entity may impose legitimate safety requirements necessary for the safe operation of its services, programs, or activities. However, the public entity must ensure that its safety requirements are based on actual risks, not on mere speculation, stereotypes, or generalizations about individuals with disabilities.

As per 28CFR §35.137, a public entity shall consider the following five factors when determining whether a particular other power-driven mobility device can be allowed in a specific facility:

- (i) The type, size, weight, dimensions, and speed of the device;
- (ii) The facility's volume of pedestrian traffic (which may vary at different times of the day, week, month, or year);
- (iii) The facility's design and operational characteristics (*e.g.*, whether its service, program, or activity is conducted indoors, its square footage, the density and placement of stationary devices, and the availability of storage for the device, if requested by the user);
- (iv) Whether legitimate safety requirements can be established to permit the safe operation of the other power-driven mobility device in the specific facility; and
- (v) Whether the use of the other power-driven mobility device creates a substantial risk of serious harm to the immediate environment or natural or cultural resources, or poses a conflict with Federal land management laws and regulations.

A. Permissible and Non-Permissible OPDMD

i. Gas-powered mobility devices

Gas-powered mobility devices are not permitted on Town of Southold-owned open space lands. The exclusion of gas-powered mobility devices, as compared to electric-powered mobility devices, is due to the engine noise a gas powered vehicle produces and is justified as per iii and v of the Mobility Devices Assessment Factors.

Scientists are finding that the acoustic environment is far more intricate and fragile to animal populations than previously thought. While once thought of as a random collection of bird songs and animal cries, the natural soundscape is actually a coordinated grouping of acoustic signals, with animal calls spread across the acoustic spectrum. Current research is bringing to light the effects of manmade noise on wildlife populations. Animals ranging from blackbirds to beluga whales are changing their calls (*i.e.*, amplitude, timing and duration of signals) and even switching to new frequencies to minimize acoustic competition (Brumm, 2004; Fuller 2007; Okeanos 2008; McDonald 2006; Wood and Yezerinac 2006). Others, such as the European blackbirds, are adapting in ways that may be creating new subspecies (Slabbekorn and Ripmeester 2008). Human-created sounds can also interfere with an animal's decisions about food selection, mate selection, and predator detection; for example, researchers have found that hermit crabs are distracted by boat noise, preventing them from paying attention to potential predators (Chan and Blumstein 2011). Some animals are disappearing from a given area altogether (Slabbekorn and Ripmeester 2008).

While the noise of a gas-powered mobility device creates a significant zone of disturbance to the activities of wildlife, it also negatively impacts the visitor experience. Southold Town open space

preserves provide relief from an increasingly urban environment. The noise from gas-powered mobility devices poses a health risk to adjacent recreationalists when it exceeds 70 dB. The USEPA has set 70dB as the 24-hour yearly hearing-protective level and exposure to greater levels would produce more than 5 dB hearing loss in at least some of the population (USEPA, 1974). The World Health Organization states that “in spaces for workers to relax or sleep and which are related to workplaces as on ships or on drilling platforms the background noise level should be below 70 dB(A)” (World Health Organization, 2001). Most gas-powered vehicles, such as ATVs and gas-driven motor bikes, exceed this noise level.

ii. Electric-powered mobility devices

Electric-powered mobility devices are permitted on Town of Southold-owned open space lands with certain limitations. All trail users are required to stay within authorized trail footprints to avoid serious harm to natural and cultural resources. As such, the types of electric-powered mobility devices that can be used are limited to specific trail categories since single track trails do not provide adequate space for safe passage of trail-users traveling in opposing directions to other power-driven devices.

B. Trail Assessments and Limitations

Southold Town’s trails can be categorized into three different types, with specific limitations and justifications as listed below.

i. Multiuse Service Trail

Examples of a multiuse service trail are unimproved and unpaved roads, typically greater than 8 feet in width. In-line and tandem electric-powered mobility devices not to exceed 36” inch maximum width shall be allowed.

These limitations are justified as per i and v of the Mobility Devices Assessment Factors. These trails are typically wide enough for one-way vehicle traffic, and this width restriction allows for safe passing of OPDMD devices, bicycles and pedestrians on unpaved roads. In addition, characteristics of select electric OPDMDs create a substantial risk of substantial harm to the environment or natural resources.

ii. Multiuse Single Track Trail

An example of a multiuse single track trail is an unpaved, narrow gauge trail suitable for multiple activities, including hiking, mountain biking or equestrian riding. In-line electric-powered mobility devices not to exceed 26” inch maximum width and a maximum wheel width of 6” shall be allowed.

These limitations are justified as i and v of the Mobility Devices Assessment Factors. These are narrow trails where two-way traffic would require pedestrians to step off the trail and harm natural resources when allowing passage of OPDMD devices larger than 26” wide. In addition, characteristics of select electric OPDMDs create a substantial risk of substantial harm to the environment or natural resources.

iii. Pedestrian Single Track Trail

An example of a pedestrian single track trail is an unpaved, narrow gauge trail suitable for hiking only. This type of trail is for natural areas and steep terrain where environmental or topographic constraints require no user impact to natural resources. No OPDMD devices shall be permitted on

these trails.

These limitations are justified as per all (i-v) of the Mobility Devices Assessment Factors. Trail users are required to stay within the authorized trail footprint to avoid serious harm to natural or cultural resources.

C. Other Notes

- Within all Southold Town Open Space lands, all OPDMDs must obey a speed limit of 5 mph when other users are present; 10 mph when other users are not present (Note: An average hiker walks one mile in about 20 minutes at a brisk pace)
- All OPDMDs must stay on designated trails or bikeways at all times.
- All users of two-wheel devices shall wear a helmet when operating those devices in compliance with New York State Law.

IV. References

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Appendix H. Implementation Plan for public access amenities, obsolete manmade structures, and ecological restoration projects

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Attachment B. Trail Map

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Attachment E. Common reed extent in interdunal swale

I. Introduction

The Plan herein details the construction of public access amenities, the removal of obsolete manmade structures, and the implementation of ecological restoration projects. To fulfill this plan in its entirety is estimated to cost \$121,583 in additional one-time costs (note: some costs are still to be determined; see Table 1). All of the expenses are eligible for reimbursement through an existing grant and all expenses are eligible for reimbursement through the Community Preservation Fund, if budgeted. All projects are outlined in Table 1: Budget and Timeline as well as in the following narratives. This Implementation Plan will be updated by the Land Preservation Department without further action by the Town Board if there is no significant change to cost or intent.

II. Public access amenities

A. Signs

i. Park sign

The sign announcing Sound View Dunes Park will be erected on the east side of the entrance into the park within 15ft of the road.

ii. Boundary signs

Boundary signs (about 20) will be ordered and installed on the perimeter of the property. The boundary signs will state:

Protected Open Space

This property is a joint acquisition by the
County of Suffolk and Town of Southold

This County and Town owned property was
purchased for the public to enjoy its
scenic and natural qualities

Add the County Park and Town logos here

iii. NOAA CELCP acknowledgement plaque

NOAA CELCP grant conditions require that “a permanent plaque or sign satisfactory to NOAA that identifies the project and credits the ‘National Oceanic and Atmospheric Administration through the Coastal and Estuarine Land Conservation Program’ as a funding source” is posted. The visitor information signage shall acknowledge NOAA CELCP as a funding source to acquire the property.

B. Parking area

The parking area to accommodate four vehicles will be constructed on the west side of the existing driveway into the park, approximately 87 feet into the park (see Attachment A). The site’s terrain and vegetation guided the shape of the proposed parking area. The entrance to the parking area is flanked by two large oak trees and the fan shape of the area itself requires the removal of few trees and shrubs. Each parking space will be approximately 10 ft by 20ft. A NYSDOT-grade RCA blend will be used to construct the parking area.

Table 1. Sound View Dunes Park - Implementation Plan -- Budget and Timeline

[illegible]

The parking area described above may be inadequate for the parking demand. If parking supply proves to be inadequate, then an additional parking area will be created directly opposite the first parking lot, on the other side of the driveway (see Attachment A).

C. Trailhead kiosk

A trailhead kiosk will be erected on the east side of the driveway across from the parking area. The Town has already purchased the wood to build the kiosk. A schematic for the trailhead kiosk, parking area, gate and bicycle rack is located in Attachment A.

D. Bicycle rack

For visitors arriving by bicycle, a bicycle rack will be installed near the kiosk (see Attachment A).

E. Gate

As per the Stewardship Management Plan, the existing gate will be removed and a new swinging gate installed closer to the parking area (see Appendix B). The new gate will be installed approximately 122 ft inside the park on the existing road. The new gate will be closed except when access for maintenance equipment is needed. To allow visitor access to the park, including participation by people with disabilities, the gate shall have a 36 inch wide opening to meet Americans with Disabilities Act regulations.

F. Trails

Two trails will be maintained (see Attachment B) and up to four rustic benches will be constructed for placement along the trails.

i. Beach trail - The beach trail (approximately 1,670 ft / 0.3 miles) is considered a multiuse service trail (*i.e.*, unimproved roads, typically greater than 8 feet in width) and will be maintained at a tread width of 15 ft, a clearing width of 15 ft and a clearing height of 15 ft. This trail already exists on site. The base of the trail will remain the original ground (*i.e.*, no wood chips or other substrates to be added without the explicit approval of the Southold Town Land Preservation Committee and the Suffolk County Department of Parks).

ii. Forest trail - The forest trail (approximately 4,920 ft / 0.9 miles) and its trail spurs are considered pedestrian single track trails (*i.e.*, unpaved, narrow gauge trails, suitable for hiking only). A tread width of 3 ft wide, a corridor clearance of 5 ft (one foot on each side of the tread), and a vertical clearance of 8 ft shall be maintained (New York State Office of Parks, Recreation and Historic Preservation, 2008). This trail already exists on site. Three walkways will be constructed on the existing forest trail, one footbridge (see area A on Attachment B) and two walkways over areas that at times of the year may be boggy (see areas B and C on Attachment B). The base of the trail will remain the original ground (*i.e.*, no wood chips or other substrates to be added without the explicit approval of the Southold Town Land Preservation Committee and the Suffolk County Department of Parks).

a. Footbridge (see area A on Attachment B) – The stream on the forest trail spur will be traversed with a minor footbridge. Currently visitors traverse the stream by jumping over it to continue along the trail. As per the drawings in Attachment C, the footbridge will be 4 ft wide, 36 ft long,

and 4½ ft tall at its greatest height. Building materials will include ACQ, galvanized bolts, and epoxy coated screws. NYSDEC permits will be required.

b. Boardwalks (see areas B and C on Attachment B) – A boardwalk will be constructed to traverse the existing trail near the terminus of the stream (the stream percolates into the ground at this point) (see area B on Attachment B). Another boardwalk will be constructed to traverse the existing trail through the freshwater wetland (see area C on Attachment B). Currently visitors traverse these sometimes boggy areas by jumping over puddles or going on the outskirts of the puddles, consequently eroding and widening the trail. Boardwalks will allow for better passage for visitors and be better for area wildlife as less habitat will be disturbed in the long term.

As per the drawing in Attachment D, the boardwalks will be 3¼ ft wide and 1½ ft tall at their greatest height. The boardwalk for Area B will be a total of 57 ft long. The boardwalk for Area C will be 43 ft long. Building materials will include ACQ, galvanized bolts, and epoxy coated screws. NYSDEC permits will be required.

iii. Habitat restoration of undesignated trails

Efforts will be made to restore the scarring caused by undesignated trails. The old trails to the island/bird rookery and the old LIPA easement are a priority for habitat restoration. The following steps will be taken on all undesignated trails:

- The trail segment will be blocked off and deadfall will be strategically placed to disguise the area. In the fall, acorns will be collected. In the center of the trail segments, white oak acorns will be planted in the fall and red oak acorns in the spring (overwintered in refrigerator). A tree sleeve will be installed over the planted acorn to protect the future seedling from excessive deer herbivory.
- To remove painted confidence markers, a wire brush will be used lightly over the painted area of the tree. As much of the stain will be removed as possible without cutting into the cambium (some of the paint, especially embedded into the crevices will likely remain). A mud poultice will be made and painted liberally over the tree trunk. The mud poultice will stain the trunk a natural color and blend in the affected area with the rest of the trunk.

III. Obsolete manmade structures

Structures associated with the park's past use as a single family residence serve as an attractive nuisance, may compromise the park visitor's experience, and may compromise the ecological integrity of the site. The undevelopment idea inspires a unique vision of communities reclaiming their rural character and restoring the environment.

Sound View Dunes Park once served as a single family residence. The family house and most of the associated accessory structures were located on the northwest portion of the property on the top of a small bluff. A large bulkhead was located of the north side of the house, an underground storage tank in the front planting area, and a swimming pool on the south side of the house complete with a patio and cabana. A small horse stable building was located in the west central portion of the property. To undevelop the entire property, all structures should be removed and natural conditions restored.

The following undevelopment projects at have been/shall be implemented:

A. House, oil tank, garage, swimming pool, and bulkhead (\$35,612.25) – COMPLETED

In 2009, the following structures were removed through a contract with Suffolk County Dirtworks (\$30,244.10) and in-house support from Town of Southold (\$533.15 for supplies):

- one story brick and single frame family home, with basement, septic system and underground oil tank (~ 3,750 s.f.)
- brick and frame garage (~ 700 s.f.)
- in-ground swimming pool, retaining wall and pool house
- timber bulkhead (~ 310 linear feet)

In November 2010, the Town of Southold planted 18,000 beach grass plants (*Ammophila breviligulata*), 50 beach plum shrubs (*Prunus maritima*) and 100 bayberry shrubs (*Myrica pensylvanica*) on the areas that were disturbed as part of the demolition (\$4,855).

B. Utility poles and wires

There are twelve wood utility poles with wires spanning ~1,700 feet from the street to the area where the house once stood. While standard utility poles are typically 40 ft long and buried about 6 ft in the ground, it seems that these poles are a bit shorter and it is unknown how deep they are buried. The spacing of the utility poles varies from 20 feet to 280 feet apart. The wires are the responsibility of the Long Island Power Authority (LIPA), one utility pole is owned by LIPA, and eleven utility poles are owned by Verizon.

The following actions shall be implemented:

- 1) LIPA will disconnect and remove the wires from all twelve utility poles at a cost of \$5,050.92. This must be done before any additional work can take place.
- 2) Verizon will disconnect/cut their small wire from the street at no cost.
- 3) Verizon will remove the five utility poles closest to the water at no cost.
- 4) LIPA and the Town of Southold will sign a hold harmless agreement
- 5) LIPA will abandon the sixth utility pole from the water, which they currently own (pole #38-6), and transfer ownership to the Town of Southold
- 6) The Town of Southold will chainsaw the utility pole a foot below ground, cut into small pieces, and haul the pieces out of the woods. The pieces may be used as the wheel stops in the parking area.

Verizon's cost estimate to remove the remaining six poles closest to the road is \$20,273.74. Because of the cost, it is proposed that the Town not pay Verizon to remove them.

C. Driveway segment from pond to house site

The ~354 feet of driveway from north of the fire pond to the former housing site is no longer appropriate for the Park and should be removed. Approximately half of this driveway length is macadam with an underlying base. Natural vegetation comprised predominantly of beach plum line this area.

The following restoration efforts are proposed for this driveway segment:

Fall 2011:

- Remove macadam and base with the payloader

- Run a tractor with mounted rototiller on the entire segment to loosen and break up the soil
- Contour restoration area with Kenney's Beach sand removed from the roadway of Leeton Drive to relieve an encroachment and allow safe passage
- Dispose of macadam and waste at the Southold Town Transfer Station
- Move heavy logs across the beginning of the driveway segment to be restored and install a restoration in progress sign on a post.
- Plant beach grass in area along the crest of the dune, which is approximately 0.05 acres. The recommendation for planting plugs is 6" on center (2,904 plants needed). This will be a volunteer project (*e.g.*, boy scout, girl scout, ROTC, etc)
- Install snow fence sections in the area that was once the driveway segment to build up sand during the winter, creating contours similar to adjacent areas. Dead Christmas trees will be affixed to some sections of snow fence to catch more sand.

Fall 2012 and Fall 2013:

Using local genotype native plants, gallon pots of bayberry (*Morella pensylvanica*) and beach plum (*Prunus maritima*) will be planted in the Fall of 2012 and 2013. The area to be revegetated with bayberry and beach plum is roughly 253ft by 15ft (approximately .087 acres). Planting 3ft on center would require 421 plants. This will be a volunteer project (*e.g.*, boy scout, girl scout, ROTC, etc).

To increase survivorship, a water adsorbing polymer gel product (\$25; *e.g.*, Terrasorb®, Stockosorb®, etc.) that has been hydrated according to label directions should be placed in the hole prior to planting. About 8oz of hydrated gel per transplant should be used. These types of non-toxic polymers absorb 300 to 400 times their weight in water, then releases it slowly to reduce watering by 50% or more.

D. Trash

Man-made trash and past construction debris will continue to be cleaned up provided such clean up does not damage the property.

IV. Ecological restoration

A. Common reed (*Phragmites australis*) eradication from maritime freshwater interdunal swale

The maritime freshwater interdunal swale community on the property is at risk of completely converting to a common reed marsh. Currently, there is *Phragmites* growing at low-density throughout about 63% of the almost 4-acre wetland swale (*Phragmites* is estimated to be growing in about 2.5 acres; see Attachment E). There are a few patches where the *Phragmites* is forming monocultures.

Phragmites australis is a giant, rhizomatous grass that forms dense, high-biomass colonies (clones) capable of covering large areas. Common reed reproduction is principally vegetative. It is spread locally by rhizome or stolon extension, and spread longer distances by water (*e.g.*, overwash and movement of wrack into freshwater swales from nearby salt marsh during large storms), animal, or machinery transport of rhizome fragments. Stolons are fast-growing horizontal stems with long internodes, produced on the ground surface and capable of crossing

unfavorable substrates including blacktop (Kiviat 2006). Although seeds are very small and have been reported to be often inviable, seeds germination can occur but establishment of stands from seed is probably rare (Kiviat 2006).

Not only does *Phragmites* threaten the community type of the habitat nestled between the dunes, *Phragmites* also threatens the health and well-being of the animals living in this area. For example, damselflies are known to associate with specific native emergent rushes and floating plants that are required for successful reproduction and common reed is eliminating these plants required for egg laying (Gibbons *et al.* 2002). Cook (1996) found that eastern box turtles avoided *Phragmites* patches overall in a radiotelemetry study of translocated box turtles in nontidal habitats at Floyd Bennett Field in Queens, New York.

i. Treatment

On Long Island, practical experience indicates that control of *Phragmites* is most successful with herbicide application alone or in combination with other techniques (*i.e.*, burning, flooding, cutting). In projects similar to the efforts proposed for the Sound View Dunes Park, 1-2 years of chemical treatment has been good at controlling *Phragmites* in the short term and first year control is often over 80% successful (Ailstock *et al.* 2001; Lombard *et al.* 2012). Dead thatch removal also assists in native plant regeneration since the biomass of dead *Phragmites* affects the light reaching the soil surface (Ailstock *et al.* 2001; Carlson and Kowalski 2009). As with all invasive species management projects, it takes many years of monitoring and treating new invasions for successful long-term control at a project site (Lombard *et al.* 2012).

Glyphosate (various formulations, including Roundup™ and Rodeo™) is the chemical most commonly used to control *Phragmites* in the United States. Glyphosate inhibits the shikimate acid pathway (production of aromatic amino acids found in proteins) in plants. This pathway is not found in animals - animals have to derive their aromatic compounds from their diet. Although glyphosate is of very low toxicity to animals, the surfactants (*i.e.*, inert ingredients) in some formulations of glyphosate can be toxic. Surfactants are used to prevent the glyphosate from forming into droplets and rolling of the leaves which are sprayed and are generally not identified on the label of the pesticide product.

The same method used by the Massachusetts Chapter of The Nature Conservancy to control *Phragmites* in 35 acres of interdunal swales at Sandy Neck barrier beach on the North Shore of Cape Cod, Massachusetts will be implemented at the Sound View Dunes Park. Initial treatment will include hand-cutting *Phragmites* stems with clippers and dripping a 50% solution of Rodeo™ down the center of each stem (cut and drip method). *Phragmites* plants too small for the cut and drip methods will be swiped with a cotton glove dipped in 33% solution of glyphosate herbicide. All work will be done in late August to early October. Each day's work will be suspended within six hours of forecasted rain. Depending on success, herbicide applications may need to be done for two consecutive years. *Phragmites* litter will be raked from high density swales. Because of the expertise and herbicide certifications required to undertake this work at the Park, herbicide application for this project will be subcontracted (cost to be determined).

ii. Monitoring

Stem density will be estimated using the broad categories of low, medium, and high.

Low density areas - have few *Phragmites* stems and an intact native community.

Medium density areas - have moderate levels of *Phragmites*, or a patchy distribution but the native community is still evident in most areas of the swale.

High density areas - nearly all *Phragmites* and is characterized by heavy levels of thatch from previous year's growth and generally little native vegetation.

Information on *Phragmites* vigor (height, flowering) will also be recorded and the native plant community generally described. Photographic monitoring at established photo points (to assess invasion levels) will also be done.

iii. Priority

Common reed management with the goal of eventual eradication is a high priority project proposed for the Sound View Dunes Park precisely because the maritime freshwater interdunal swale community is so rare. Common reed management is not suggested, nor prudent, for infestations on all publically owned properties. This project has a high likelihood of success because it is an isolated system with comparatively fewer vectors for reinfestation. Using the methodology outlined above, there was a 95-100% decrease in live stems of *Phragmites* one-year post treatment at Sandy Neck in two of the three swales treated (Lombard *et al.* 2012).

iv. Permits required

This work will require an exemption from the Suffolk County Pesticide Phase-out Citizens Advisory Committee as well as wetland permits from the New York State Department of Environmental Conservation and the Southold Town Trustees.

B. Fire pond restoration

A .38 open pond, commonly called the "Fire Pond", is located within the freshwater wetlands chain of the maritime freshwater interdunal swale. Looking at the aeriels and geologic setting, it seems that this waterbody was once a freshwater wetland as well and was dredged. The pond should be allowed to naturally succeed into a wetland system again; no work to help it succeed is suggested. *Phragmites australis* surrounds much of this pond and should be addressed with the eradication work detailed above.

C. Deer management

This Park shall be managed for deer through the institution of the County/Town hunting programs (permit required, open to all Suffolk County residents).

V. Special issues

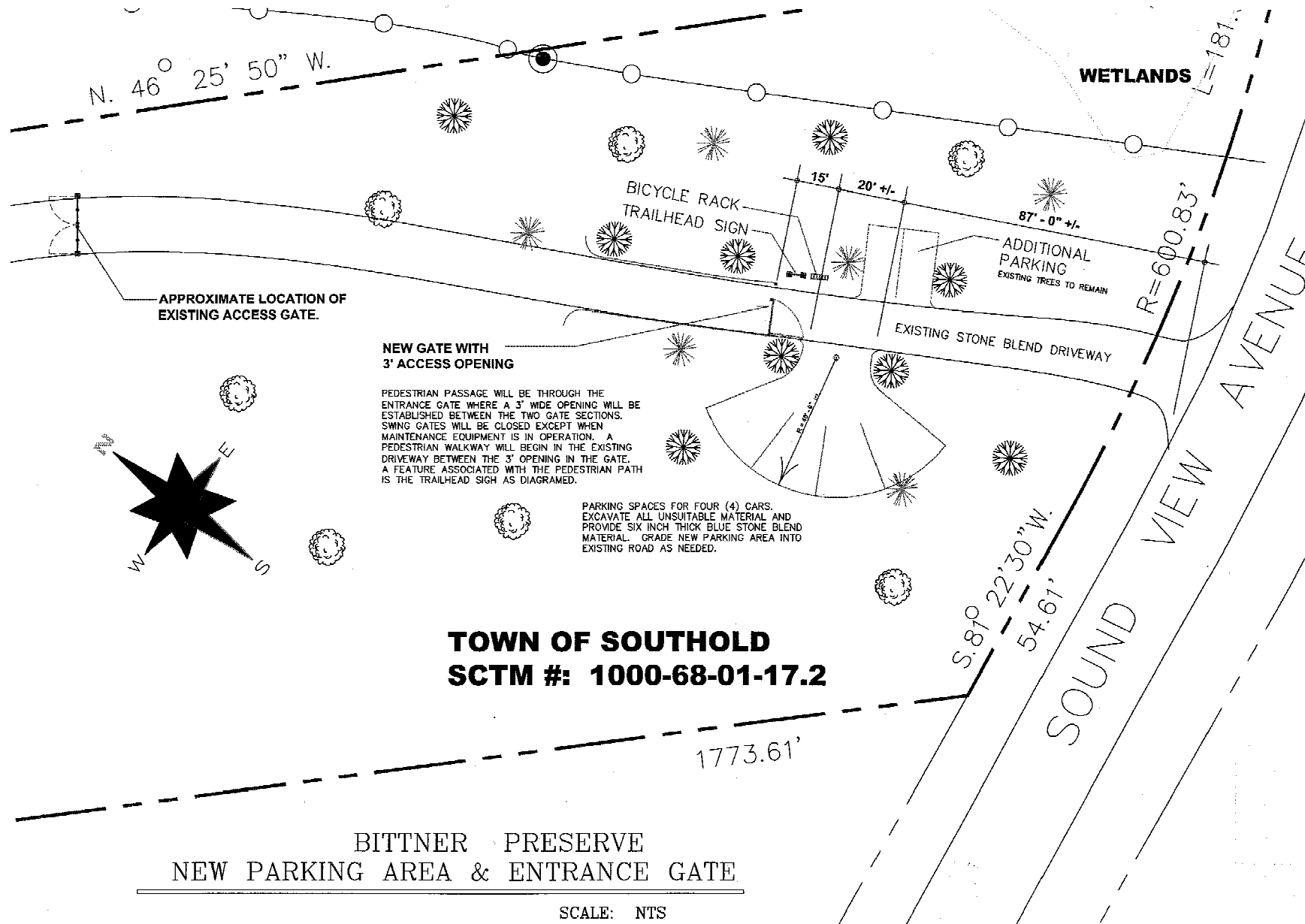
Grant Funding

In 2009, Town of Southold received a Local Waterfront Revitalization Program Grant from the NYS Department of State in the amount of \$195,000. The funding was provided for "removal of existing structures, dune vegetation plantings, and construction of a parking area and improvements to an existing nature trail in line with plans prepared by the Town of Southold." (Agreement #C006877, The Bittner Preserve Improvement Project, 2009). A 1:1 match is provided in the form of property acquisition.

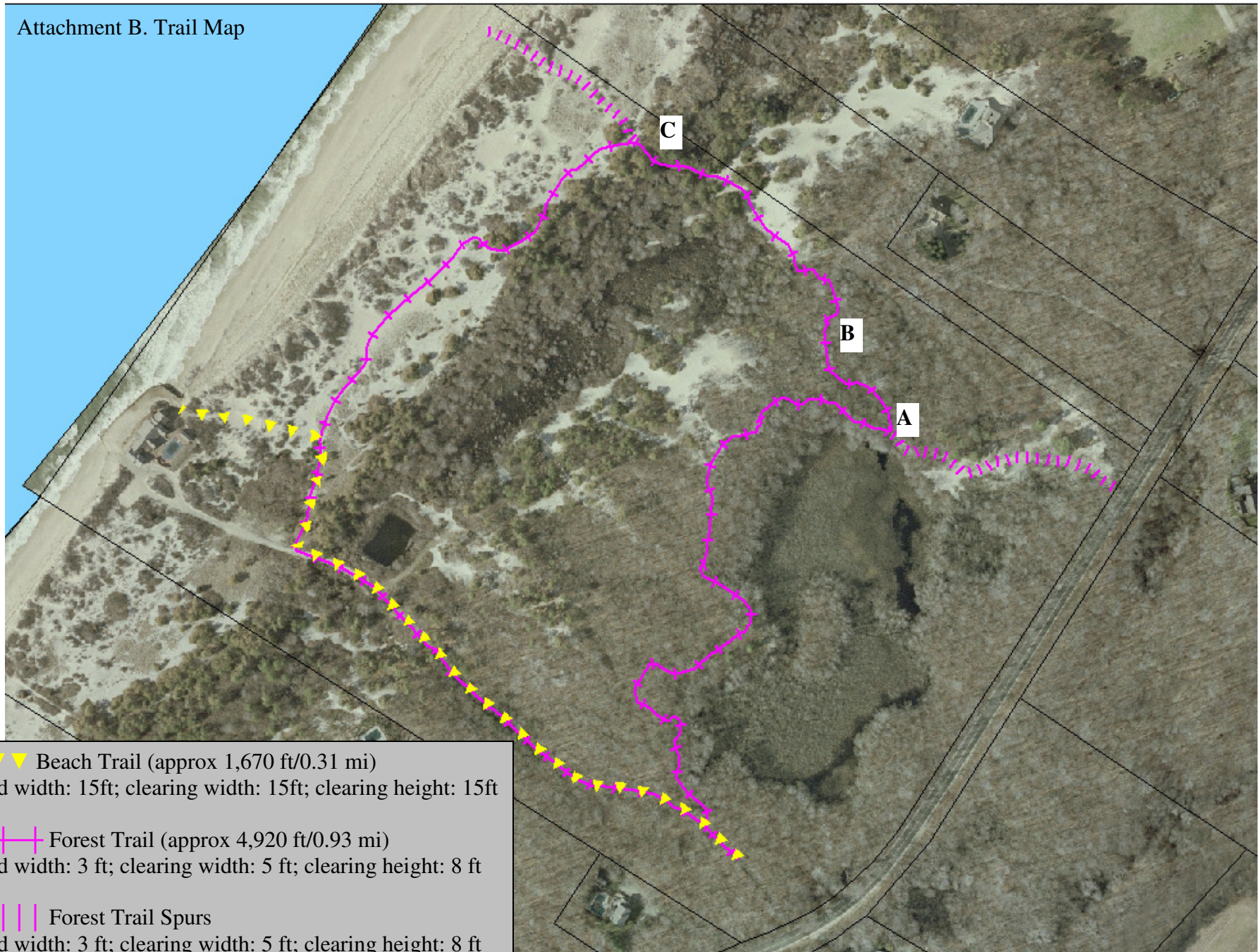
VI. References

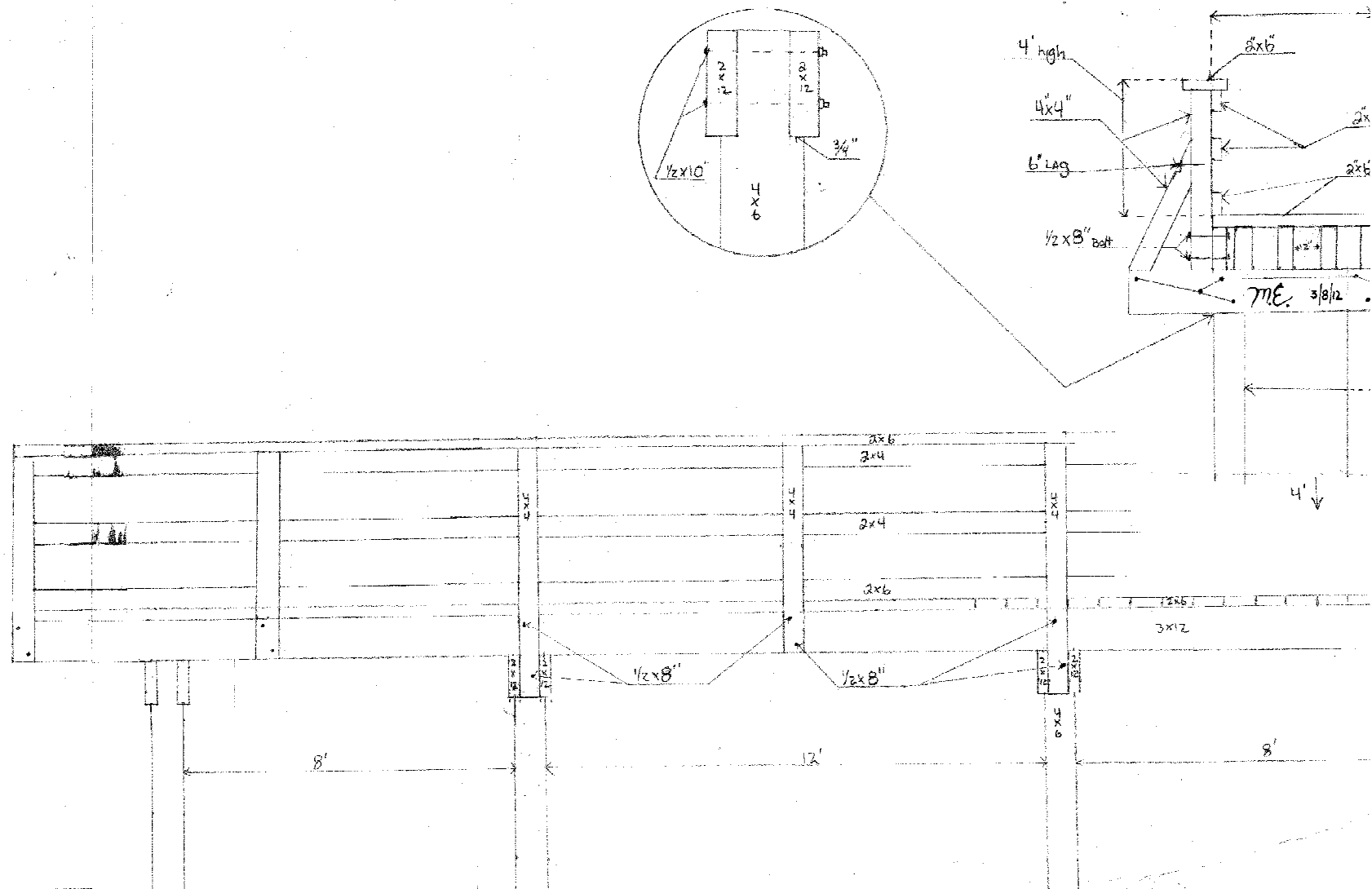
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Attachment A. Schematic of parking area and public access structures

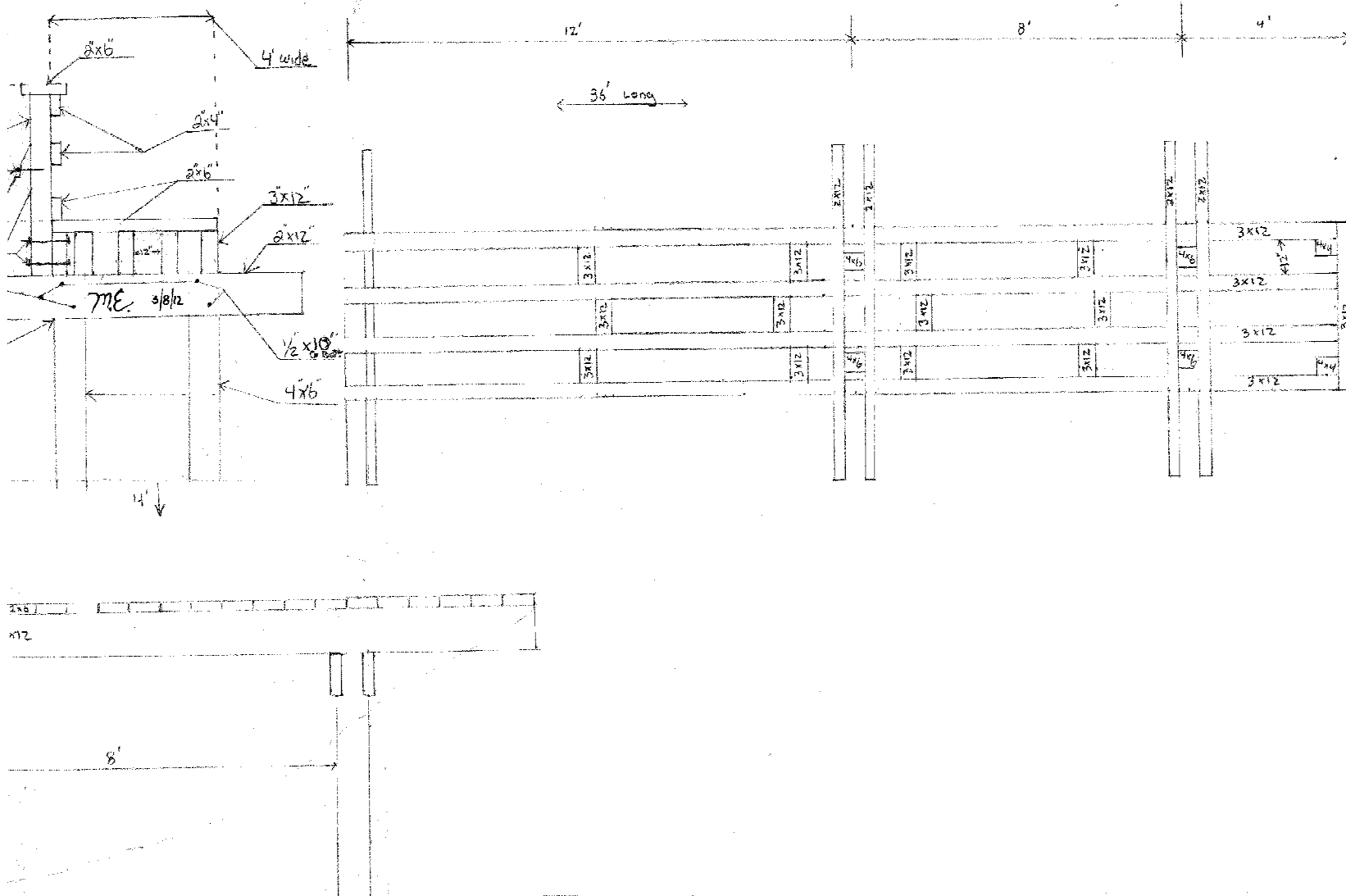


Attachment B. Trail Map

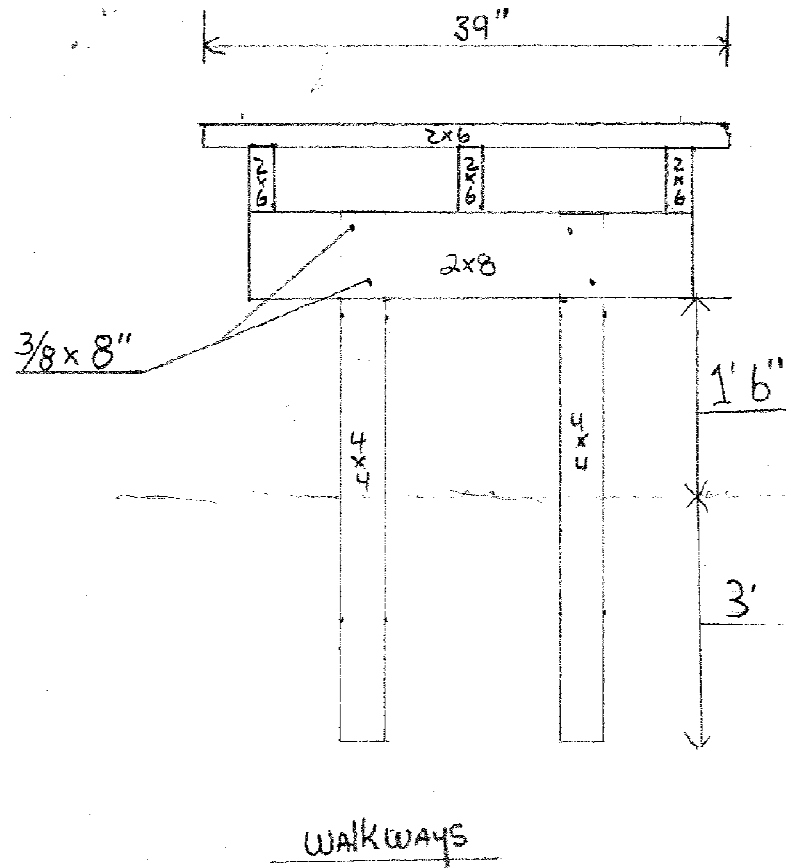




Sound View Dunes Park Stewardship Management Plan
Adopted by Southold Town Board March 27, 2012; Resolution 2012-297



Attachment D. Boardwalk



Attachment E. Common Reed Extent in Interdunal Swale



Sound View Dunes Park Stewardship Management Plan
Adopted by Southold Town Board March 27, 2012; Resolution 2012-297